

# Engineering Data

## Stromberg-Carlson Nos. 340 and 341 Radio Receivers

**STROMBERG-CARLSON TELEPHONE MANUFACTURING COMPANY  
ROCHESTER, NEW YORK**

### ELECTRICAL SPECIFICATIONS

Type of Circuit	Superheterodyne with Electric Tuning
Tuning Ranges	Range "A", 530 to 1700 Kc.; Range "C", 5900 to 18,000 Kc.
Number and Type of Tubes	1 No. 6A8; 1 No. 6K7; 1 No. 6H6; 1 No. 6F5; 1 No. 6C5; 2 No. 6V6-G; 1 No. 6U5; 1 No. 80
Power Supply Voltage	105 to 125 Volts, A. C.
Power Frequency Rating	50 to 60 Cycles and 25 to 60 Cycles
Input Power Rating:	
Radio Models Only	80 Watts
No. 340-P Radio-Phono Model	100 Watts
No. 341-P Radio-Phono Model	100 Watts
Frequency of Intermediate Amplifier	455 Kilocycles

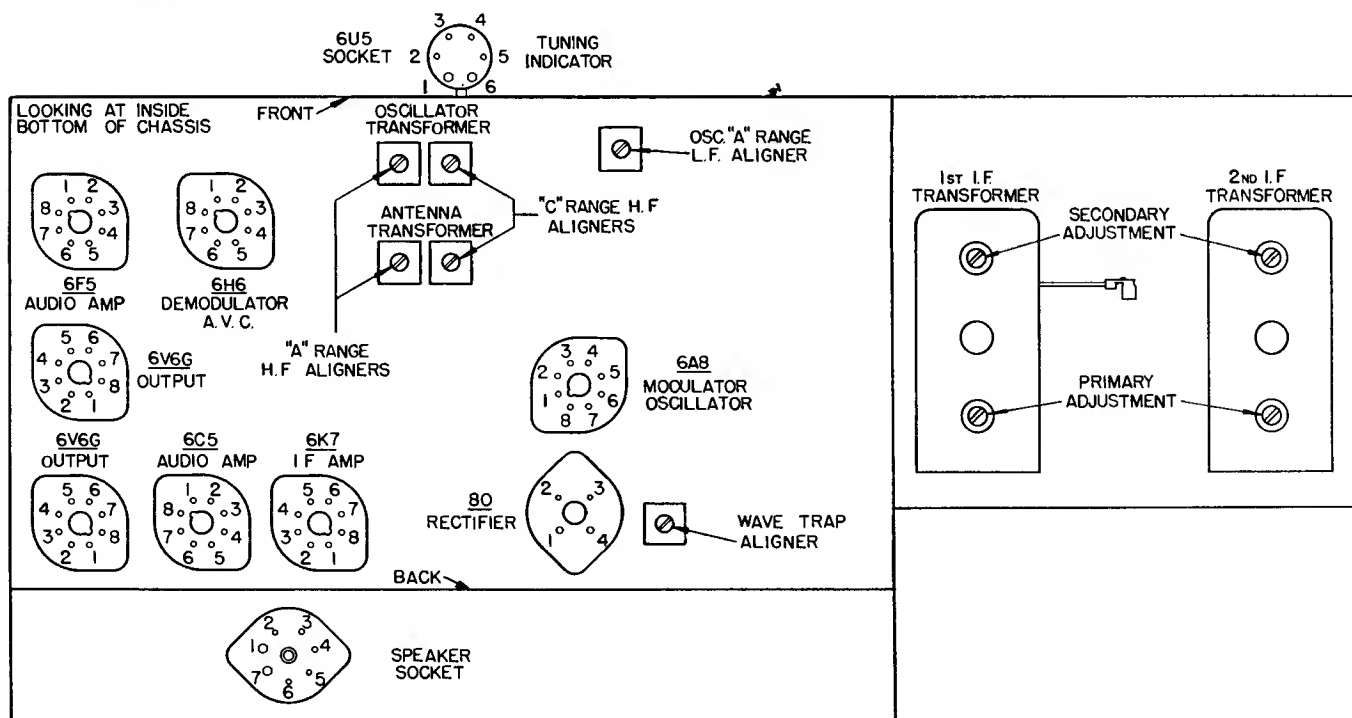
### APPARATUS SPECIFICATIONS

No. 340-F Receiver	50 to 60 Cycles; P-28961 Chassis Assembly; P-26170 Speaker
No. 340-FB Receiver	25 to 60 Cycles; P-28962 Chassis Assembly; P-26170 Speaker
No. 340-H Receiver	50 to 60 Cycles; P-28961 Chassis Assembly; P-26170 Speaker
No. 340-HB Receiver	25 to 60 Cycles; P-28962 Chassis Assembly; P-26170 Speaker
No. 340-M Receiver	50 to 60 Cycles; P-28961 Chassis Assembly; P-26170 Speaker
No. 340-MB Receiver	25 to 60 Cycles; P-28962 Chassis Assembly; P-26170 Speaker
No. 340-V Receiver	50 to 60 Cycles; P-28961 Chassis Assembly; P-26171 Speaker
No. 340-VB Receiver	25 to 60 Cycles; P-28962 Chassis Assembly; P-26171 Speaker
No. 340-P Receiver	60 Cycles Only; P-29419 Chassis Assembly; P-26171 Speaker; P-29717 Phono Unit
No. 340-PB Receiver	25 Cycles Only; P-29420 Chassis Assembly; P-26171 Speaker; P-29718 Phono Unit
No. 341-R Receiver	50 to 60 Cycles; P-29051 Chassis Assembly; P-26170 Speaker
No. 341-RB Receiver	25 to 60 Cycles; P-29052 Chassis Assembly; P-26170 Speaker
No. 341-P Receiver	60 Cycles Only; P-28968 Chassis Assembly; P-26170 Speaker; P-29443 Phono Unit
No. 341-PB Receiver	25 Cycles Only; P-28969 Chassis Assembly; P-26170 Speaker; P-29444 Phono Unit

### CIRCUIT DESCRIPTION

These receivers are nine tube, instantaneous "Electric Tuning" superheterodyne receivers employing metal tubes and a highly efficient dynamic speaker. There are two tuning ranges, the frequency limits of each range being listed under the "Electrical Specifications", given above.

The electric tuning circuit is arranged so that eight favorite stations located in the Standard Broadcast range may be set up for instantaneous selection by means of the push buttons. (Local and other stations that give the best daytime and evening service should be selected.) To properly set up the electric tuning arrangement for the eight favorite Standard Broadcast stations, read the section, "Instructions for Setting Up the Electric Tuning



**Fig. 1. Terminal Layout for Voltage Measurement Chart and Location of the Aligning Capacitors.**

Arrangement", appearing on page 4 of this book. Manual or electric tuning for the Standard Broadcast range is easily obtainable by simply rotating the Range Switch control knob so that the arrow on the knob points in the direction of the designation for the desired type of tuning. When manually tuning the receiver in either the Standard Broadcast or Short Wave ranges, the electric tuning arrangement is made inoperative and the dial of the receiver is illuminated. When the Range Switch control knob is set for electric tuning (arrow on Range Switch control knob pointing in direction of the star), the dial illumination ceases and the station letters of the eight stations which are set up for electric tuning become illuminated. When manually tuning these receivers or when setting up the eight desired stations for electric tuning, resonance with a signal is indicated by means of the tuning indicator tube which operates on the cathode-ray principle.

A special temperature controlled compensating capacitor is used in the oscillator circuit of these receivers when operating the electric tuning arrangement in order to eliminate drift in the oscillator's frequency. These receivers are also provided with a low level bass frequency compensating circuit in conjunction with the volume control circuit so that balanced reproduction is obtained for any setting of the volume control.

In addition to the above features, the No. 340-P Receiver is also equipped with a single record playing phonograph unit, and the No. 341-P Receiver is equipped with an automatic record changer phonograph unit. These phonograph units use a crystal type pick-up in conjunction with a specially equalized circuit.

The chassis used in the table models differ from the chassis used in the console models in that a 125-ohm resistor, R-29, is added in the rectifier filament circuit. In addition, the chassis used in the No. 341 Receivers differs from the chassis used in the No. 340 Receivers in the type of electrolytic filter capacitors which are used. Also, the radio phonograph models are equipped with a radio-phonograph switch.

The various tubes are used in these receivers as follows: The No. 6A8 tube functions as both the Modulator and Oscillator tube. The No. 6K7 tube is used in the I. F. Amplifier and the No. 6H6 tube is used as both the Demodulator and Automatic Volume Control tube. The No. 6F5 tube is used in the Audio Amplifier and the No. 6C5 tube is used as the Phase Inverter tube of the Audio Amplifier circuit. The two No. 6V6-G tubes are used in the Audio Power Output Stage. The No. 6U5 tube is used for indicating resonance in the tuning indicator system and the No. 80 tube is the Rectifier tube of the Power Supply Unit.

### NORMAL VOLTAGE READINGS

The values of voltages listed in the following table are obtained by measuring between the various tube socket contacts and the chassis base, with the tubes in their respective sockets. The receiver is, therefore, in full operation when the measurements are made. Figure 1, shows the terminal layout of the sockets with the proper terminal numbers.

Voltages are given for a line voltage of 120 volts, and allowance should be made for differences when the line voltage is higher or lower. A meter having a resistance of 1000 ohms per volt should be used for measuring the D. C. voltages. Voltage values shown are those obtained on the lowest possible scale of a meter having the following ranges: 0-2.5, 0-10, 0-100, 0-250, 0-500, 0-1000 volts except when an asterisk appears after any given voltage value in which case the 1000 volt scale was used.

Due to the use of the 125-ohm resistor, R-29, in the chassis used in table models, some socket terminals in the voltage table have two listed voltages; the lower voltage being obtained from those chassis which are equipped with this resistor, and the upper voltages are those obtained from chassis not equipped with this resistor.

Tube	Circuit	Cap	Terminals of Sockets								Heater Voltages Between Heater Terminals	
			1	2	3	4	5	6	7	8	Socket Terminal Numbers	Volts
6A8	Mod., Osc.	0	0	0	+245 +240	+109	-14	+205	6.3	+2.35	2-7	6.3
6K7	I. F. Amp.	0	0	0	+250 +244	+109*	0	+290	6.3	+3.3	2-7	6.3
6H6	Dem., A. V. C.	—	0	0	0	0	0	0	6.3	0	2-7	6.3
6F5	Audio Amp.	0	0	0	0	+100*	0	+220* +218*	6.3	0	2-7	6.3
6C5	Audio Inv.	—	0	0	+138* +136*	+250 +244	0	0	6.3	+4.8	2-7	6.3
6V6-G	Audio Output	—	0	0	+244 +237	+250 +244	0	0	6.3	+13.8	2-7	6.3
6V6-G	Audio Output	—	0	0	+244 +237	+250 +244	0	0	6.3	+13.8	2-7	6.3
6U5	Tuning Ind.	—	6.3	+139* +135*	0	+250 +244	0	0	—	—	1-6	6.3
80	Rectifier	—	+370	372	372	+370	—	—	—	—	1-4	5
Speaker Socket			+370	0	0	+370	+370	0	—	—		

Receiver tuned manually to 1000 kc., no signal. A. C. voltages are indicated by italics.

## ALIGNMENT DATA

All alignment adjustments are accurately made at the factory on these receivers, and ordinarily no re-adjustments are necessary. However, should it become necessary to make any readjustments, the alignment procedure given in the following paragraphs should be carefully followed. In order to make these aligning adjustments in an easy and satisfactory manner, it is recommended that the Stromberg-Carlson P-24608 aligning tool be used.

To accurately align the circuits in these receivers, it is necessary to use a high grade, modulated test oscillator (Signal Generator), the output voltage of which can be varied. In conjunction with this test oscillator, a sensitive output meter should be used for determining the maximum signal voltage developed across the voice coil of the loud speaker.

In making any alignment adjustments, always adjust the test oscillator's output voltage to the minimum value where a good alignment may still be obtained. Never attempt to make any alignment adjustments using a strong signal. Before proceeding with the alignment of any circuits in these receivers be sure that the "Off-On-Tone" control knob is set for maximum treble response (position where knob is rotated from its maximum counter-clockwise position, slightly clockwise to position where set turns "on"), and that the slotted shaft of the electric tuning set-up switch, located on the rear of the chassis base, points in the direction of the word "Set-Up". When the aligning adjustments have been completed the slotted shaft of the electric tuning set-up switch should be rotated so that the slot points in the direction of the word, "Operate". Figure 1, shows the location of all the aligning capacitors in these receivers.

### Dial Adjustment

Before aligning the circuits of any of these receivers, the tuning dial must be properly aligned to track with the gang tuning capacitors. To check whether the dial is set correctly with respect to the gang tuning capacitors, rotate the "Station Selector" knob in a clockwise direction so that the gang tuning capacitors are set to their maximum capacity position. Then, with the gang tuning capacitors in this position, the dial pointer should be placed on the horizontal center line of the dial. To do this, align the pointer with the short black line located at the extreme right-hand edge of the dial plate.

### Intermediate Frequency Adjustments

The intermediate frequency used in these receivers is 455 kilocycles. In making these circuit adjustments always align the circuits in the order given in these instructions.

1. Set the Electric Tuning and Range Switch control knob to the manual tuning standard broadcast position (arrow on knob pointing in direction of letters "BR."). Set the dial pointer by means of the Station Selector knobs to the extreme low frequency position on the receiver's dial. Rotate the "Off-On-Tone" control knob slightly clockwise from its most counter-clockwise position, which is the "normal" position. By aid of a screwdriver rotate the slotted shaft of the Electric Tuning Set-Up switch located at the rear of the chassis base, so that the slotted shaft points in the direction of the word "Set-Up" (maximum clockwise rotation). Rotate the Volume control knob to its maximum clockwise position (maximum volume).
2. Apply between the chassis base (or ground binding post) of the receiver and the grid of the No. 6A8 modulator-oscillator tube, a modulated signal of 455 kilocycles from the test oscillator, using a 0.1 microfarad capacitor in series with the connection between the output terminal of the test oscillator and the grid of the No. 6A8 tube. Do not remove the chassis grid lead connecting to this tube. The ground (or low side) terminal of the test oscillator should be connected to either the chassis base or the ground binding post terminal.
3. Now, noting from Figure 1, the aligning capacitors for the first and second I. F. transformers, align the I. F. circuits in the following manner:
  - Secondary of second I. F. transformer.
  - Primary of second I. F. transformer.
  - Secondary of first I. F. transformer.
  - Primary of first I. F. transformer.

Adjusting the circuits to obtain maximum reading on the output meter, reducing the output of the test oscillator as required.

### Radio Frequency Adjustments

The alignment of the radio frequency circuits in these receivers should be very carefully made and in the order specified.

#### Alignment of Short Wave Range (Also Referred to as "C" Range)

In aligning the radio frequency circuits for this range, replace the 0.1-microfarad capacitor which was placed in series with the test oscillator's output lead for the I. F. alignments, with a 400-ohm carbon type resistor. This lead should then be connected to the antenna binding post located on the rear of the receiver chassis. The ground terminal (or low side) of the test oscillator should be connected to the ground binding post on the receiver.

1. Rotate the Electric Tuning and Range Switch control knob to the Short Wave ("C") range position, and set the test oscillator's frequency and the receiver's tuning dial to 17 megacycles.

2. Adjust the oscillator's "C" range high frequency aligner for maximum output.
3. Adjust the antenna's "C" range high frequency aligner for maximum output and at the same time rotate the gang tuning capacitor back and forth through resonance until maximum output is obtained.

#### **Alignment of Standard Broadcast Range (Also Referred to as "A" Range)**

In aligning the radio frequency circuits for this range, replace the 400-ohm carbon type resistor in series with the test oscillator's output lead with a 200-micro-microfarad capacitor and align these circuits as follows:

1. Rotate the Electric Tuning and Range Switch control knob to the manual tuning, Standard Broadcast ("A") range position and set the test oscillator's frequency and the receiver's tuning dial to 1.5 megacycles.
2. Adjust the oscillator's "A" range high frequency aligner for maximum output.
3. Adjust the antenna's "A" range high frequency aligner for maximum output.
4. Set the test oscillator's frequency and the receiver's tuning dial to 0.6 megacycles.
5. Adjust the oscillator's "A" range low frequency aligner (series aligner) for maximum output, and at the same time rotate the gang tuning capacitor slightly back and forth through resonance until maximum output is obtained.
6. Reset both the test oscillator's frequency and receiver's tuning dial to 1.5 megacycles and repeat operations Nos. 2 and 3.

#### **Wave Trap Adjustment**

In adjusting the wave trap circuit, set the Electric Tuning and Range Switch control knob to the manual tuning, Standard Broadcast position (arrow on knob pointing in direction of letters "BR."). Set the dial pointer to 1000 kilocycles and the Electric Tuning Set-Up Switch, located on the back of the receiver chassis, to the "Set-Up" position.

Connect a 200-micro-microfarad capacitor in series with the output terminal of the modulated test oscillator and the antenna binding post on the receiver, and the ground terminal of the test oscillator to the ground binding post on the receiver. Then, with the modulated test oscillator set at the frequency of the intermediate amplifier, 455 kilocycles, supply a fairly strong signal to the receiver and adjust the wave trap aligner until a minimum indication is obtained on the output meter.

**IMPORTANT:** When all the aligning adjustments have been completed, it is important that the Electric Tuning Set-Up Switch (located on the rear of the receiver chassis) be re-set to the "Operate" position.

### **OBTAINING REPRODUCTION FROM PHONOGRAPH RECORDS FOR NOS. 340 AND 341 RECEIVERS NOT EQUIPPED WITH A RECORD PLAYING UNIT**

In order to obtain reproduction of phonograph records in conjunction with these receivers, the following instructions should be followed.

To equip these receivers for phonograph operation, it will be necessary to purchase and install a Stromberg-Carlson, P-29712 Package Assembly. The rear of the chassis base of the receiver is already drilled for this assembly. Complete instructions on how to install and operate this assembly are furnished with each P-29712 Package Assembly.

To obtain the best quality of phonograph reproduction from these receivers, a Stromberg-Carlson Record Player is recommended. The record player is equipped with a correctly designed single record playing motor unit, and uses a crystal type pick-up in conjunction with a specially equalized circuit.

If the Stromberg-Carlson Record Player is not used and the electric pick-up to be used is of the high impedance type, it will be necessary to connect a low capacity shielded cable between the three-prong socket and plug of the P-29712 Package Assembly, and the pick-up. This shielded cable should be of the low capacity type. The length of the shielded cable used should be kept as short as possible.

If a pick-up of the low impedance type is used, it will be necessary to connect a "matching transformer" between the three-prong socket and plug of the P-29712 Package Assembly, and the pick-up. The transformer should be located as near to the receiver as possible in which case it will not be necessary to use a shielded cable.

### **INSTRUCTIONS FOR SETTING UP THE ELECTRIC TUNING ARRANGEMENT**

1. Before proceeding to set up the stations for electric tuning, the radio receiver should be turned "on" for approximately twenty minutes.
2. Set the Range Switch Control Knob to the manual tuning position for the Standard Broadcast range (arrow on knob pointing in direction of the letters BR.).  
If the particular model is either a No. 340-P or No. 341-P Receiver, check the position of the "Radio-Phono" control knob. For radio reception this knob should be rotated so that the arrow on the knob points in the direction of the word "Radio".
3. Remove the list of station letters from the P-28781 Package Assembly which is tacked inside of the cabinet.
4. Remove the three screws which hold the electric tuning escutcheon plate (metal plate). Then, remove from the escutcheon, the strip of transparent material and the strip of paper on which the eight stars are printed.
5. Remove the five screws which hold the electric tuning escutcheon to the front panel.





6. From the lists of stations, remove the call letters of the eight stations which it is desired to set up for electric tuning. These eight stations should preferably be selected and set up in the daytime so that the best service will be obtained at all times.

**CAUTION:** Each button adjustment for electric tuning has assigned frequency limits. These limits are designated for each adjustment on the cover plate which covers the electric tuning adjusting capacitors (visible when the electric tuning escutcheon is removed from the cabinet). The eight stations should be selected so that the frequency of each station will be within the assigned frequency limits of its associated push button.

It will be noted that the station letters are printed on partially cut squares to facilitate ease in removing the desired station letters. In setting up these eight favorite stations, the following order should be followed:

Looking at the front of the receiver, the station letters of the station having the highest frequency should be inserted into the farthest left-hand square of the escutcheon. Then, in successive order, according to the frequency, insert the station letters of the remaining seven stations into the other seven squares of the electric tuning escutcheon; the station letters of the station having the lowest frequency being inserted into the farthest right-hand square of the escutcheon.

After the eight station call letters have been inserted into the escutcheon, the transparent strip should be replaced over the station call letters, and the escutcheon plate then fastened into its position on the electric tuning escutcheon by means of the three screws.

The tuning adjustments for the eight favorite stations can now be made, starting with the station having the highest frequency and proceeding as follows:

7. **IMPORTANT:** By aid of a screwdriver, rotate the slotted shaft of the Electric Tuning Set-Up Switch, which is located at the rear of the chassis base, so that the slotted shaft points in the direction of the word, "Set-Up" (maximum clockwise rotation).
8. With the receiver turned "on", and the Range Switch control knob set to the standard broadcast position (arrow on knob pointing in direction of letters BR.), tune the receiver in the conventional manner by means of the station selector knobs to that station having the highest frequency (of the eight chosen for setting up in the electric tuning arrangement) and carefully note the program which it is broadcasting. Then, rotate the Range Switch control knob to the electric tuning position (arrow on knob pointing in direction of the small star).
9. With the electric tuning escutcheon still removed from the cabinet, push in the push button rod for the station having the highest frequency (provided, of course, that the station chosen has a frequency which is within the assigned frequency limits for this button). Now, looking in on the electric tuning unit, rotate by means of a small screwdriver, the screw of the oscillator (OSC.) tuning adjustment which is designated 1560 to 1000 kilocycles to the position where the desired station is received.

In order to check whether the program being received is from the desired station, simply rotate the Range Switch control knob to the manual tuning position (arrow on knob pointing in direction of letters BR.), and with the receiver tuned in manually to the desired station a quick check can be made; then, rotate the Range Switch control knob back to the electric tuning position. Exact resonance with the desired station should be obtained by observing the tuning indicator.

**IMPORTANT:** Always use the tuning indicator unit when setting up stations for electric tuning in order to determine when resonance with the desired station is obtained.

10. When the oscillator tuning adjustment has been properly made as mentioned in paragraph 9 above, the screw of the antenna (ANT.) tuning adjustment designated 1560 to 1000 kilocycles should be rotated to the position where exact resonance with the desired station is again obtained by observing the tuning indicator.

When these adjustments have been properly made, the station having the highest frequency is correctly set up for electric tuning selection.

11. Now proceed to set up the remaining seven stations in the same manner as mentioned in Paragraphs 7, 8, 9 and 10 above, proceeding according to the frequency of the remaining stations.
12. **IMPORTANT:** When all of the adjustments have properly been made for the eight desired stations, the slotted shaft of the Electric Tuning Set-Up Switch located on the rear of the chassis base, should be rotated so that the slotted shaft points in the direction of the word, "Operate" (maximum counter-clockwise rotation).

The electric tuning escutcheon should then be refastened into its position on the cabinet by means of the five special screws.

## REPLACEMENT PARTS

Piece Number	Circuit Designation	Part
22988	.	Socket, 4 Prong
23517	.	Socket, 7 Prong
24402	C30	Capacitor, .1 Mfd.
24405	C1, C20, C21, C31	Capacitor, .04 Mfd.
24559	C34	Capacitor, Type O, 100 Mmfd.
24994	C47	Capacitor, .05 Mfd.
25149	C33, C36, C44	Capacitor, .01 Mfd.
25301	.	Power Supply Cord for Phono. Unit (Used Only on Nos. 340-P and 341-P Receivers)
25487	C8	Capacitor, Type W, .001 Mfd.
25539	.	Socket, 8 Prong
26029	C18, C19, C25, C26	Aligning Capacitors, I. F. Transformers
26062	R3	Resistor, Type F, 10,000 Ohms
26151	C37, C38	Capacitor, .005 Mfd.
26313	R28	Resistor, Type E, 22 Ohms

## REPLACEMENT PARTS—Continued

Piece Number	Circuit Designation	Part
26322	R35 . . . . .	Resistor, Type E, 120 Ohms
26326	R30 . . . . .	Resistor, Type E, 270 Ohms
26328	R8 . . . . .	Resistor, Type E, 390 Ohms
26333	R6 . . . . .	Resistor, Type E, 1,000 Ohms
26341	R15 . . . . .	Resistor, Type E, 4,700 Ohms
26343	R18 . . . . .	Resistor, Type E, 6,800 Ohms
26349	R2 . . . . .	Resistor, Type E, 22,000 Ohms
26351	R25 . . . . .	Resistor, Type E, 33,000 Ohms
26353	R4, R12, R21 . . . . .	Resistor, Type E, 47,000 Ohms
26357	R1, R7, R9, R19, R34 . . . . .	Resistor, Type E, .1 Megohm
26359	R33 . . . . .	Resistor, Type E, .15 Megohm (Used Only on No. 340-P Receivers)
26362	R13, R14, R22 . . . . .	Resistor, Type E, .27 Megohm
26365	R20, R26 . . . . .	Resistor, Type E, .47 Megohm
26365	R33 . . . . .	Resistor, Type E, .47 Megohm (Used Only on No. 341-P Receivers)
26369	R10, R17, R32 . . . . .	Resistor, Type E, 1 Megohm
26512	C27, C28 . . . . .	Capacitor Assembly, (2—100 Mmfd.)
26778	C48 . . . . .	Capacitor, Type W, .005 Mfd.
27081	C40 . . . . .	Tuning Capacitor, Wave Trap
27108	C17, C23, C24, C46 . . . . .	Capacitor Assembly (2—.05 Mfd.)
27125	R11 . . . . .	Resistor, Type F, 25,000 Ohms
27149	L1 . . . . .	Wave Trap Coil
27305	C11 . . . . .	Capacitor, Type O, 50 Mmfd.
27311	R23 . . . . .	Switch Assembly, "Off-On" Switch and Tone Control
27538	C39 . . . . .	Capacitor, Type W, .005 Mfd.
27610	R16 . . . . .	Volume Control
28002	C15 . . . . .	Capacitor, .25 Mfd.
28025	. . . . .	Pilot Lamp
28180	R5 . . . . .	Resistor, Type EB, 82,000 Ohms
28652	. . . . .	Cord (Power Supply)
28670	C6, C7 . . . . .	Gang Tuning Capacitors and Bracket Assembly
28694	. . . . .	Dial Lamp Socket Assembly
28695	. . . . .	Dial Pointer
28696	RC27 . . . . .	Bias Cell
28757	. . . . .	Tuning Drive Assembly
28805	C3, C4, C5 . . . . .	H. F. Aligning Capacitors, Antenna and Oscillator Transformers
28806	C2 . . . . .	H. F. Aligning Capacitor, Antenna Transformer, "C" Range
28810	L12, L13 . . . . .	First L. F. Transformer
28820	. . . . .	Range Switch
28824	. . . . .	Electric Tuning Set Up Switch
28841	C16, C22 . . . . .	Capacitor, Type W, .0015 Mfd.
28848	L10 . . . . .	Coil Assembly, Antenna Shunt
28849	L11 . . . . .	Coil Assembly, Oscillator Shunt
28857	C10 . . . . .	Oscillator L. F. Aligner ("A" Range)
28858	C9 . . . . .	Capacitor, 370 Mmfd.
28859	RC43 . . . . .	Compensator Unit Assembly
28882	L2, L3, L4, L5 . . . . .	Coil Assembly, Antenna Transformer
28883	L6, L7, L8, L9 . . . . .	Coil Assembly, Oscillator Transformer
28914	C13, C45 . . . . .	Electrolytic Capacitor, 25 Mfd., 400 Volts (Used Only on No. 340 Receivers)
28915	C14 . . . . .	Electrolytic Capacitor, 16 Mfd., 300 Volts (Used Only on No. 340 Receivers)
28916	C12 . . . . .	Electrolytic Capacitor, 16 Mfd., 300 Volts (Used Only on No. 340 Receivers)
28917	C32, C35 . . . . .	Capacitor Assembly, 12 Mfd., 25 Volts, 1 Mfd., 250 Volts
28918	. . . . .	"Radio-Phono." Switch
28945	L16, L17 . . . . .	Transformer Assembly, Audio Output
28956	R24 . . . . .	Resistor, 200 Ohms
28958	C29 . . . . .	Capacitor, .15 Mfd., 200 Volts
28959	. . . . .	Phono. Shielded Cable and Plug
28964	L20, L21, L22, L23 . . . . .	Power Transformer (50 to 60 Cycles Chassis)
28965	L20, L21, L22, L23 . . . . .	Power Transformer (25 to 60 Cycles Chassis)
28966	. . . . .	Electric Tuning Cable Assembly
28967	. . . . .	Electric Tuning Cable Assembly
29002	C13, C45 . . . . .	Electrolytic Capacitor, 25 Mfd., 450 Volts (Used Only on No. 341 Receivers)
29003	C12, C14 . . . . .	Electrolytic Capacitor, 16 Mfd., 350 Volts (Used Only on No. 341 Receivers)
29088	C41, C42 . . . . .	Adjustable Capacitors and Switches for Electric Tuning
29096	. . . . .	Pilot Lamp Socket Assembly (For Station Letters)
29129	. . . . .	Spring for Dial Drive
29137	. . . . .	Large Pulley for Dial Drive
29549	R31 . . . . .	Resistor, Type E, 1 Megohm
29951	L14, L15 . . . . .	Second I. F. Transformer

### MISCELLANEOUS PARTS

27628	Felt Washer . . . . .	Used on Volume, Off-On-Tone and Radio-Phono. Controls' Shafts
27629	Felt Washer . . . . .	Used on Range Switch Control Shaft
27802	Knob . . . . .	Used on Rapid Station Selector Control Shaft
27803	Knob . . . . .	Used on Vernier Station Selector Control Shaft
27804	Knob . . . . .	Used on Range Switch Control Shaft
28843	Knob . . . . .	Used on Volume and Off-On-Tone Controls' Shafts
29084	Knob . . . . .	Used on Radio-Phono. Control Shaft (Nos. 340-P and 341-P Receivers Only)